ARI Contractor Report 96-14

Battle Command Training Program Database: Final Report

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BDM Federal, Inc.

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July 1996

United States Army Research Institute for the Behavioral and Social Sciences

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Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington DC 20503.

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| 1. AGENCY USE ONLY (Leave black) | nk) 2. REPORT DATE July 1996 | 3. REPORT TYPE AND Final Report | | |
| 4. TITLE AND SUBTITLE Battle Command Traini | ng Program Database: | Final Report | 5. FUNDING NUMBERS MDA903-92-D-0075-0001 3413 | |
| 6. AUTHOR(S) | | | CO2 623007 A794 | |
| J. Ward Keesling Jack A. Briscoe | | | | |
| 7. PERFORMING ORGANIZATION BDM FEDERAL INC. DOD CENTER MONTEREY B | | | 8. PERFORMING ORGANIZATION REPORT NUMBER | |
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| SEASIDE, CA 93955 | | | | |
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| BEHAVIORAL AND SOCIAL SCIENCES 5001 EISENHOWER AVENUE | | | Contractor Report | |
| ALEXANDRIA, VA 22333-5600 | | | 96-14 | |
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| 14. SUBJECT TERMS Corps/Division/Brigade | e Training Exercises | | 15. NUMBER OF PAGES | |
| Combat Training Center Archive (DOTMLS) | | | 16. PRICE CODE | |
| 17. SECURITY CLASSIFICATION OF REPORT | 18. SECURITY CLASSIFICATION OF THIS PAGE | 19. SECURITY CLASSIFICA OF ABSTRACT | TION 20. LIMITATION OF ABSTRACT | |
| UNCLASSIFIED | UNCLASSIFIED | UNCLASSIFIED | INTTMTTED | |

BATTLE COMMAND TRAINING PROGRAM DATABASE FINAL REPORT

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March 31, 1993

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BATTLE COMMAND TRAINING PROGRAM DATABASE FINAL REPORT

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BATTLE COMMAND TRAINING PROGRAM DATABASE FINAL REPORT

Background

The Combat Training Centers (CTCs) have two missions:

- Provide tough, realistic combined arms training in which the unit to be trained must exercise all of the battlefield operating systems (BOSs) in accordance with AirLand Battle doctrine.
- Provide a data source for training, doctrine, organization and equipment improvement.

In fulfilling the first mission, the CTCs generate information that can be used to fulfill the second mission. Gathered on a series of units over time, performance information can be used to make inferences about the overall status of training, doctrine, organization, leadership, materiel, and soldier services (DOTMLS).

The Army Research Institute for Behavioral and Social Sciences (ARI) is tasked to maintain archives and databases concerning performance at the CTCs in its Field Unit at the Presidio of Monterey (POM). These databases and archives are used to support the second mission of the CTCs.

The Battle Command Training Program (BCTP) is considered to be a CTC, specializing in training exercises for command staff training at the Brigade, Division and Corps levels. These training exercises, known as Warfighter Exercises (WFXs), and the system that supports them, are described extensively in supporting reports, listed in the references section of this report. Presently, data generated by the BCTP exercises are not part of the ARI-POM Archive data base.

Objective

The purpose of this report is to document the establishment of a framework for integrating the BCTP data into the data base at ARI-POM. The primary advantage to integrating this data into the ARI-POM Archive would be that all echelons operating at the tactical level (see TRADOC PAM 11-9, *The Blueprint of the Battlefield*) would be incorporated into this Archive. Thus, a problem with a tactical-level system (i.e. one of the BOSs) can be examined throughout all the relevant echelons.

Project Summary

The project consisted of two thrusts, carried out simultaneously. The first was directed at gathering information about the nature of the exercises conducted at BCTP and the data that were generated in the course of those exercises. The second was directed at identifying the community of users who would be interested in having the BCTP data available in the CTC Archive at ARI-POM and determining what their requirements would be. These two thrusts were brought together in a concept for an operational database. The concept was given more concrete shape in the database structure document.

The documents listed in the references section are incorporated into this final report. The BCTP Data Conference Readahead Package documents the materials that were sent to the participants in the Requirements Conference. The result of this conference is documented in: Battle Command Training Program (BCTP) Requirements Analysis. The Battle Command Training Program (BCTP) Front End Analysis documents the information gathered about the functioning of the BCTP and the conduct of WarFighter Exercises. The Battle Command Training Program (BCTP) Database Concept relates the information concerning various sources of data from BCTP WFXs to a generalized statement of requirements that encompasses the specific requirements identified by the participants in the conference (the documentation for which is described above). The Battle Command Training Program (BCTP) Database Specification describes how the materials from the BCTP will be incorporated into the CTC Archive and how databases will be created to permit identification, selection and analysis of data from WFXs.

Database Implementation Plan

The next phase of this project will be to obtain information from a small number of WFXs (two or three) and to confirm that the structure and procedures outlined in the Database Specification are applicable and feasible. This test case will enable us to determine what modifications to existing procedures will have to be made to accommodate these new data sources. In addition, we will be able to determine how much effort will have to be made to create new data structures for sources of information that are unique to the BCTP.

During this phase, we should obtain information about the availability of historical records from BCTP so that we may determine the requirements for shelf space and warehousing to accommodate the physical component of the BCTP data. In addition, we will need to obtain descriptions of the data tapes available from the Corps Battle Simulation and Battlefield Intelligence Collection Model systems.

The outcome of this phase will be documented procedures for cataloging and shelving the physical data sources from the BCTP, as well as the documentation for procedures used in filling databases from the relevant sources. The CTC Archive would then be prepared to accept BCTP WFX data on a regular basis and incorporate it routinely into its holdings and databases.

References

- Briscoe, J.A. BCTP Data Conference Readahead Package. Monterey, CA: U.S. Army Research Institute, 1992.
- Briscoe, J.A. and Burkett, J. Battle Command Training Program (BCTP) Database Concept. Monterey, CA: U.S. Army Research Institute, 1993.
- Briscoe, J.A. and Keesling, J.W. Battle Command Training Program (BCTP) Requirements Analysis. Monterey, CA: U.S. Army Research Institute, 1993.
- Burkett, J. and Briscoe, J.A. Battle Command Training Program (BCTP) Front End Analysis.

 Monterey, CA: U.S. Army Research Institute, 1993.
- Keesling, J.W. and Briscoe, J.A. Battle Command Training Program (BCTP) Database Specification. Monterey, CA: U.S. Army Research Institute, 1993.